



What is ricin?

Ricin is a poison found naturally in castor beans. If castor beans are chewed and swallowed, the released ricin can cause injury. Ricin can be made from the waste material left over from processing castor beans.

Who is at risk for ricin?

Risk of ricin poisoning is very low. Unintentional exposure to ricin is highly unlikely, except through the ingestion of castor beans.

What are the symptoms of ricin?

The symptoms will vary depending on how a person was exposed. If you inhale ricin, the most likely symptoms would be respiratory distress (difficulty breathing), fever, cough, nausea and tightness in the chest that occur within a few hours. Heavy sweating may follow, as well as fluid building up in the lungs. If someone swallows a significant amount of ricin, he or she would likely develop vomiting and diarrhea that may become bloody. Severe dehydration may be the result, followed by low blood pressure. Skin and eye exposure occurs when ricin is absorbed through breaks in the skin or mucus membranes such as in the nose and eyes. Ricin is unlikely to be absorbed through intact skin. Contact with ricin powders or products may cause redness and pain of the skin and the eyes.

How soon do symptoms appear?

Initial symptoms of ricin poisoning by inhalation may occur as early as 4 to 8 hours and as late as 24 hours after exposure. Following ingestion of ricin, initial symptoms typically occur in less than 10 hours.

How is ricin spread?

It would take a deliberate act to make ricin and use it in a form to poison more than one person. Ricin poisoning is not contagious. Ricin-associated illness cannot be spread from person to person through casual contact. However, if you come into contact with someone who has ricin on their body or clothes, you could become exposed to it.

When and for how long is a person able to spread the illness?

There are no reports of the disease spreading from person to person.

How is a person diagnosed?

There are several different types of tests used to detect ricin. These include testing suspicious materials/packages and/or human body fluids such as urine for the presence of ricin.

What is the treatment?

No antidote exists for ricin. Symptomatic ricin poisoning is treated by providing supportive medical care to minimize the effects of the poisoning. The types of supportive medical care would depend on several factors,

such as the route by which victims were poisoned (that is, whether poisoning was by inhalation, ingestion, or skin or eye exposure). Care could include such measures as helping victims breathe, giving them intravenous fluids, giving them medications to treat conditions such as seizure and low blood pressure, flushing their stomachs with activated charcoal, or washing out their eyes with water if their eyes are irritated.

Does past infection make a person immune?

No. A person cannot become immune to ricin.

Should children or others be excluded from child care, school, work or other activities if they have been exposed to ricin?

If your child care, work or school were the target of ricin exposures, call your local authorities immediately.

What can be done to prevent the spread of ricin?

Get fresh air right away by leaving the area where the ricin was released.

- If the ricin release was outside, move away from the area where the ricin was released.
- If the ricin release was indoors, get out of the building.

If you are near a release of ricin, emergency coordinators may tell you to either evacuate the area or to “shelter in place” inside a building to avoid being exposed to the poison.

If you think you may have been exposed to ricin, you should remove your clothing, rapidly wash your entire body with soap and water, and get medical care as quickly as possible.

Remove your clothing: Take off clothing that may have ricin on it, but DO NOT pull off shirts over the head. This will prevent contaminating your nose, mouth and eyes. If you are helping others, try to avoid touching any contaminated areas, and remove the clothing as quickly as possible.

Washing yourself: As quickly as possible, wash any ricin from your skin with large amounts of soap and water. If your eyes are burning or your vision is blurred, rinse your eyes with plain water for 10 to 15 minutes. If you wear contacts, remove them and put them with the contaminated clothing. Do not put the contacts back in your eyes (even if they are not disposable contacts). If you wear eyeglasses, wash them with soap and water. You can put your eyeglasses back on after you wash them.

Disposing of your clothes: After you have washed, place your clothing inside a plastic bag. Avoid touching it or the items as much as possible. Then seal the bag, and then seal that bag inside another plastic bag. When the local or state health department or emergency personnel arrive, tell them what you did with your clothes.

Additional Information:

Additional information is available by calling the North Dakota Department of Health at 800.472.2180.

This disease is a reportable condition. As mandated by North Dakota law, any incidence of this disease shall be reported to the North Dakota Department of Health.

Resource: Centers for Disease Control and Prevention, 2013: <http://emergency.cdc.gov/agent/ricin/facts.asp>

